

Some Cases of Reactions for the Redistribution of
Radicals in Organic Lead, Tin, and Silicon Compounds

80486

S/020/60/132/02/33/067
B011/B002

$(C_2H_5)_4Sn$ (I), $(C_2H_5)_3SnR$ (II), $(C_2H_5)_2SnR_2$ (III), $C_2H_5SnR_3$ (IV), and SnR_4 (V).
However, there will be no equilibrium in the developing mixture since (III), (IV), and (V) are no "symmetrical" compounds. Theoretically it is therefore probable that (III) - (V) will enter into side reactions during the redistribution of radicals, and besides tetraethyl tin will develop a series of substances with chains of metal atoms still longer and more ramified. Due to the decomposition of molecules, there will be no equilibrium in the mixture (I) - (V). In agreement with the above theory, the authors found out that 2-3 weight% of aluminum chloride or other catalysts of the radical redistribution, rapidly reduce the stability of hexaethyl diplumbane and hexaethyl distannane, also altering its decomposition mechanism (equations (B) and (V)). It was spectroscopically proven however, that the decomposition of these two compounds takes place according to equation (B) developing an intermediate product of diethyl lead, and diethyl tin respectively. During the disproportionation of hexaethyl distannane (but not of hexaethyl diplumbane) however, highly-molecular intermediate products develop between 70° - 75° under the influence of $AlCl_3$. This is in agreement with the above-mentioned reaction mechanism. In this case the equilibrium is disturbed by the participation of reaction products in

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side processes. This causes the formation of unstable products. The authors give further examples of publications on their statement (Refs. 3-8). The reaction between isopropylchloride and tetraethyl lead was not successful. Table 1 gives a summary of the authors' experiments. There are 1 table and 8 references, 2 of which are Soviet.

ASSOCIATION: Nauchno-issledovatel'skiy institut khimii pri Gor'kovskom gosudarstvennom universitete im. N. I. Lobachevskogo (Scientific Research Institute of Chemistry of the Gor'kiy State University imeni N. I. Lobachevskiy)

SUBMITTED: February 15, 1960

Card 3/3

RAZUVAYEV, G.A.; DERGUNOV, Yu.I.; VYAZANKIN, N.S.

Reaction of tetraethyllead with halogenated hydrocarbons. Zhur.
ob. khim. 31 no.3:998-1003 Mr '61. (MIRA 14:3)

1. Nauchno-issledovatel'skiy institut khimii pri Gor'kovskom
gosudarstvennom universitete imeni N. I. Lobachevskogo.
(Lead) (Hydrocarbons)

RAZUZAYEV, G.A.; VYAZANKIN, N.S.; DERGUNOV, Yu.I.; VYSHINSKIY, N.N.

Thermal decomposition of tetraethyllead, hexaethylplumbane, and their analogs. Part 5: Reactions of decomposition and disproportionation of hexaethyldistannane. Zhur.ob.khim. 31 no.5:1712-1717 My '61. (MIRA 14:5)

1. Nauchno-issledovatel'skiy institut khimii pri Gor'kovskom gosudarstvennom universitete imeni N.I.Lobachevskogo.
(Tin organic compounds)

RAZUVAYEV, G.A.; VYAZANKIN, N.S.; D'YACHKOVSKAYA, O.S.; KISELEVA, I.G.;
DERGUNOV, Yu.I.

Certain reactions of organic compounds of elements of the group
IV catalyzed by aluminum chloride. Zhur.ob.khim. 31 no.12:4056
D '61. (MIRA 15:2)

1. Nauchno-issledovatel'skiy institut khimii pri Gor'kovskom
gosudarstvennom universitete imeni N.I.Lobachevskogo.
(Organometallic compounds)

S/020/62/145/002/012/018
B106/B101

AUTHORS: Razuvayev, G. A., Corresponding Member AS USSR,
Dergunov, Yu. I., and Vyazankin, N. S.

TITLE: Homolytic reactions of organotin compounds with alkyl
halides initiated by peroxides

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 145, no. 2, 1962, 347-350

TEXT: The reaction of small amounts of benzoyl peroxide with binary systems from an organotin compound (tetraethyl tin, dimethyl-diethyl tin, hexaethyl distannane, triethyl tin chloride) and an alkyl halide (carbon tetrachloride, n-propyl bromide) in the absence of oxygen, was studied to prove that peroxides may initiate the reaction of organotin compounds with alkyl halides. In all cases, radical chain reaction set in at 75-80°C initiated by decomposition of benzoyl peroxide. The reaction of peroxide with the system tetraethyl tin - CCl₄, which mainly yields

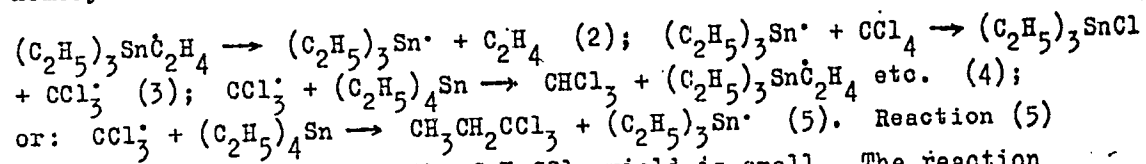
triethyl tin chloride, ethylene, and chloroform, was studied in detail:

$$R^{\cdot} + (C_2H_5)_4Sn \rightarrow RH + (C_2H_5)_3Sn\dot{C}H_4 \quad (R = C_6H_5COO, C_6H_5) \quad (1);$$

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B106/B101

Homolytic reactions of organotin ...



is of minor importance as the $C_2H_5CCl_3$ yield is small. The reaction mixture also contains ethane and traces of butane formed by disproportionation and dimerization of ethyl radicals which result from the reaction $C_6H_5COO\cdot + (C_2H_5)_4Sn \rightarrow (C_2H_5)_3SnOCOC_6H_5 + C_2H_5\cdot \quad (6)$. Reactions (6) and (1) take place together. Hexachloro ethane traces form by recombination of CCl_3 radicals (chain rupture). Triethyl tin chloride may be converted in the same way as initial tetraethyl tin since diethyl tin dichloride was also isolated from the reaction mixture. This was confirmed by the reaction between benzoyl peroxide and the system $(C_2H_5)_3SnCl - CCl_4$. Peroxide caused no chain reaction with the tetramethyl tin - CCl_4 mixture. The reaction of hexaethyl distannane with CCl_4 initiated by peroxide was

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Homolytic reactions of organotin ...

complicated and yielded great amounts of chloroform and ethylene. The ethyl groups of hexaethyl distannane are affected by the trichloromethyl radicals and triethyl tin chloride and diethyl tin dichloride are formed. The tin-tin bond in $(C_2H_5)_6Sn_2$ is ruptured; it has still to be found out whether this process is homolytic or not. Reactions (1), (2), and (6) take place when benzoyl peroxide reacts with the system tetraethyl tin - n-propyl bromide. Reaction (3) is completely analogous to them (with C_3H_7Br instead of CCl_4). The resulting propyl and ethyl radicals of Eq. (6) disproportionate according to the chain reaction $R' + (C_2H_5)_4Sn \rightarrow RH + (C_2H_5)_3Sn \cdot + CH_2=CH_2$ (9); $R' + CH_3CH_2CH_2Br \rightarrow RH + CH_3\dot{C}HCH_2Br$ (10); $CH_3\dot{C}HCH_2Br \rightarrow CH_3-CH=CH_2 + Br \cdot$ (11) ($R = C_2H_5, C_3H_7$). Studies of the decomposition of peroxide compounds in propyl bromide to confirm the courses of reactions (10) and (11) are described in a separate paper. There is 1 table.

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Homolytic reactions of organotin ...

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B106/B101

ASSOCIATION: Nauchno-issledovatel'skiy institut khimii pri Gor'kovskom
gosudarstvennom universitete im. N. I. Lobachevskogo
(Scientific Research Institute of Chemistry at the Gor'kiy
State University imeni N. I. Lobachevskiy)

SUBMITTED: April 17, 1962

✓

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S/081/62/000/022/027/088
B144/B101

AUTHORS: Vyazankin, N. S., Razuvayev, G. A., Dergunov, Yu. I.

TITLE: Effect of metallic lead and hexaethyldiplumbane on the decomposition of stabilized tetraethyl lead

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 22, 1962, 228, abstract 22Zh244 (Tr. po khimii i khim. tekhnol. [Gor'kiy], no. 3, 1961, 652-655)

TEXT: A mixture of tetraethyl lead (III) and highly dispersed Pb was obtained from $(C_2H_5)_3PbPb(C_2H_5)_3$ (I) under the effect of 2-3% by weight of C_2H_4Br (II) ($\sim 20^\circ C$, 24 hrs). Decanted III, with an admixture of II (5-10% by weight of the initial amount) in another case a nonseparated mixture of II, III and Pb, was kept 4 hrs at $135^\circ C$, all contact between the reaction mixture and the air moisture being prevented. It has been found that II prevents the thermal decomposition of III, but that Pb weakens this effect considerably. For this reason additions of I to a mixture of III and II (% by weight of I and II: 3.1-8.6; 1.8-2.1,

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Effect of metallic lead and ...

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B144/B101

respectively) caused III to decompose (135°C). The decomposition of III under the action of Pb is not accompanied by an accumulation of I as intermediate. [Abstracter's note: Complete translation.]

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RAZUVAYEV, G.A.; DERGUNOV, Yu.I.; VYAZANKIN, N.S.

Reaction of hexaethylstannane with halo derivatives. Zhur.ob.-
khim. 32 no.8:2515-2520 Ag '62. (MIRA 15:9)
(Tin organic compounds) (Halides)

NAUMOV, G.I.; VELEKIN, N.G.; DEZHNEV, I.I.; GLADYSHEV, Ie.N.

Chemical reactions of tetraethyltin with propyl bromide.
Izv. AN. Ser. Khim. no. 5:342-344. Py 1974. (MIRA 17:5)

I. Gor'kovskiy gosudarstvennyy universitet im. N.I. Lobachevskogo.

UNANOV, G.; KURBATOVA, Ye.; KARAVAYEVA, S.; DERGUNOVA, A.

New standards for hogs and pork meat. Mias.ind. SSSR 33 no.3:18-20
162. (MIRA 15:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut myasnoy promyshlennosti.
(Pork industry—Standard)

DERGUNOVA, A. A.

137-1958-3-4904

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 3, p 64 (USSR)

AUTHOR: Dergunova, A. A.

TITLE: Zinc Plants Production Indices for 1956 (Tekhniko-ekonomicheskiye pokazateli raboty tsinkovykh zavodov za 1956 g.)

PERIODICAL: Byul. tsvetn. metallurgii, 1957, Nr 13, pp 29-38

ABSTRACT: ~~Information is presented~~ dealing with the composition of Zn concentrates (ZC) at concentration plants (CP) of the USSR, the specific gravity of ZC's from various CP's employed in the charge of processing plants, the extraction of ZnCd and Pb, as well as the production costs of Zn, and production indices of pyro- and hydrometallurgical reduction processing of ZC at various plants. It is noted that the 1956 conversion to the method of roasting ZC in a boiling layer increased the content of soluble Zn in the sinter by 2-3 percent. ("Elektrotsink" and "Ukrtsink" plants), while the SO₂ content in gases increased up to 6.7 percent ("Elektrotsink" plant). The least expensive Zn is manufactured at the "Elektrotsink" plant, while the most expensive Zn is produced at the Belovsk plant.

B. Z.

Card 1/1

DERGUNOVA, A.A.

GRAT'SHERSHEYN, Israil' Markovich; DERGUNOVA, A.A., red.; BERLOV, tekhn. red.

[Comprehensive utilization of metal ore in nonferrous metal industry]
Kompleksnoe ispol'zovanie rudnogo syr'ia v tsvetnoi metallurgii.
Moskva, Gos. nauchno tekhn. izd-vo lit-ry po chernoi i tsvetnoi
metallurgii, 1958. 60 p. (MIRA 11:?)
(Nonferrous metal industries)

TYURYAKOV, A.F.; KUKHRANOVA, G.M.; TARUBAROV, I.G.; ZABELYSHINSKIY, I.M.;
DERGUNOVA, A.A.; KLEYNERMAN, D.A.

Results of administrative and economic activity in nonferrous metal
industries in 1957; from annual reports. Biul. TSIIN tsvet. met.
no. 7:30-36 '58. (MIRA 11:7)
(Nonferrous metal industries)

KONAREVSKIY, A.A., starshiy nauchnyy sotrudnik; DERGUNOVA, A.A., starshiy
nauchnyy sotrudnik; VASYAGINA, O.A., tehnik

Development of modern standards of electric power consumption
for the production of sausages. Trudy VNIIMP no.9:152-157 '59.
(MIRA 13:8)

(Sausages)

LAVROVA, L., kandidat tekhnicheskikh nauk; DERGUNOVA, A., mladshiy nauchnyy
sotrudnik; POLETAYEV, T.; ZUBKOV, I.

Diagrams for salting hams by injection with a hollow needle. Mias.
ind. SSSR 26 no. 4:16-17 '55. (MLRA 8:10)

1. Vseboyuznyy nauchno-issledovatel'skiy institut myasnoy promyshlen-
nosti (for Dergunov and Poletayev). 2. Master 1-go klassa Moskovskogo
myasokombinata (for Zubkov)
(Pork industry) (Meat--Preservation)

DERGUNOVA, A.A.; MIRONOV, A., professor, retsenzent; YERMAKOVA, Ye., inzhener,
retsenzent; MIRKIN, Kh., kandidat tekhnicheskikh nauk, spetsredaktor;
IVANOVA, N.M., redaktor; YAROV, E.M., tekhnicheskii redaktor

[Sausage casing production] Kishchnoe proizvodstvo. Moskva,
Pishchepromizdat, 1956. 103 p. (MLRA 10:2)
(Sausage casings)

ANFINOV, Apollon Nikolayevich, kand.tekhn.nauk; LAVROVA, Lidiya Pavlovna, kand.tekhn.nauk; MANERBERGER, Aleksandr Abramovich, prof.; MIRKIN, Yefim Yul'yevich, kand.tekhn.nauk. Prinsipalni uchastiye: SMOL'SKIY, N.T., inzh.; DERGUNOVA, A.A., inzh.. NOVOSELOVA, L.V., red.; TARASOVA, N.M., tekhn.red.

[Technology of meat and meat products] Tekhnologiya miasa i miasoproduktov. Moskva, Pishchepromizdat, 1959. 593 p.
(MIRA 13:1)

(Meat industry)

BARMASH, A.I., kand.tekhn.nauk; DERGUNOVA, A.A., starshiy nauchnyy sotrudnik;
DYKLOP, V.K., kand.bilogicheskikh nauk; DUBROVINA, L.I., mladshiy
nauchnyy sotrudnik; TRUDOLYUBOVA, G.B.; POLETAYEV, T.N.; V rabote
prinimali uchastiye; LAVROVA, L.P.; POZHARISKAYA, L.S.; ZUYEVA, L.D.;
KALITA, L.A.; NESLYUZOV, A.F.; GOL'DMAN, Ye.I.; MAKEYEVA, M.N.;
STEFANOV, A.F.

Use of blood in sausage manufacturing and canning. Trudy VNI IMP
no.9:63-74 '59. (MIRA 13:8)

1. Vsesoyuznyy nauchnoy-issledovatel'skiy institut myasnoy promy-
shlennosti (for Lavrova, Pozhariskaya, Zuyeva, Kalita, Neslyuzov).
2. Spetsialisty Moskovskogo myasokombinata (for Goldman, Makeyeva,
Stefanov).
(Blood as food or medicine) (Sausages)
(Canning and preserving)

DERGUNOVA, A.A.; UNANOV, G.S.; KURBATOVA, Ye.A.; KARAVAYEVA, S.G.

Standards for pork. Standartizatsiia 26 no.2:43-44 F '62.
(MIRA 15:2)

(Pork--Standards)

VOLOVINSKAYA, V.I., kand. tekhn. nauk; RUBASHKINA, S.Sh., starshiy nauchnyy sotrudnik, DERGUNOVA, A.A., starshiy nauchnyy sotrudnik; SHCHEGOLEVA, O.P., mladshiy nauchnyy sotrudnik; MERKULOVA, V.K., tekhnik; PAVLOV, D.V., kand. tekhn. nauk; MATROZOVA, S.I., kand. khim. nauk

Use of ascorbic acid, sodium ascorbate and glutamate in the production of sausages. Trudy VNIIMF no.11:76-86 '62.

(MIRA 18:2)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut myasnoy promyshlennosti (for Volovinskaya, Rubashkina, Dergunova, Shchegoleva, Merkulova). 2. Moskovskiy tekhnologicheskiy institut myasnoy i molochnoy promyshlennosti (for Pavlov, Matrozova).

DERGUNOVA, Aleksandra Aleksandrovna; PELEYEV, A.I., prof.,
retsenzent; MANERBERGER, A.A., prof., spets. red.
KORBUT, L.V., red.

[Processing of guts] Obrabotka kishok. Moskva, Pishche-
vaia promyshlennost', 1965. 185 p. (MIRA 18:10)

BOL'SHAKOV, K.A.; DERGUNOVA, G.M,

Solubility in the ternary system $\text{NaNO}_3 - \text{CaNO}_3 - \text{H}_2\text{O}$ at 25
and 50°. Zhur.neorg.khim. 5 no.1:209-213 Ja '60.

(MIRA 13:5)

(Sodium nitrate) (Cesium nitrate)

✓ K.S. 2000, K.S.
LAVROV, V.V.; ARKHANGEL'SKAYA-IEVINA, M.S.; FEDOROV, D.N.; IOSSET, G.Ya.;
SOSNYAKOV, N.G.; BERINGEE, Yu.V.; KOZACHINSKIY, R.M.; YELET'SKAYA,
O.I.; GOSHKINA, A.I.; MIKLASHEVSKAYA, A.V.; ZYKOV, A.A.; LEBEIEV,
M.F.; BERGUNOVA, K.S.; RYTSK, Z.A.; FREMKINA, D.Z.; TSIVIN, S.S.

In memory of A.M.Zabludovskii. Khirurgiia no.12:74-75 D '53.
(MLRA 7:1)

(Zabludovskii, Anton Martynovich, 1880-1953)

15.2410

28875
S/180/61/000/004/013/020
E071/E180

AUTHORS: Meyerson, G.A., Dergunova, V.S., Epel'baum, V.A.,
and Gurevich, M.A. (Moscow)

TITLE: An investigation of some hard alloys of the
Boron—Silicon—Carbon system

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Otdeleniye
tehnicheskikh nauk. Metallurgiya i toplivo.
no. 4, 1961, 90-94

TEXT: The above system has, as yet, been insufficiently
studied. For this reason the authors investigated three groups of
alloys of the following types: alloys close to the zone of solid
solutions based on SiC, alloys based on B₄C, and alloys of the
central part of the ternary B-Si-C system. In the latter, the
points were chosen so as to overlap the zones in which previous
investigators assumed the possibility of the existence of a
ternary compound of the type B_xSi_yC_z. Specimens of the alloys were
obtained by hot pressing powder mixtures of the elements at
2000-2100 °C (no details of the preparation are given). Spectral
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An investigation of some hard alloys.... ²⁸⁸⁷⁵ S/130/61/000/004/013/020
E071/E180

analysis of the specimens indicated that the sum of admixtures (Fe, Mg, Al, Ca) did not exceed 0.1%. Porosity did not exceed 2-5%, and density was uniform throughout the whole volume of the specimens. A prolonged high temperature annealing (50-100° below pressing temperature) brought the alloys to the equilibrium state with an increase in the grain size, but did not cause any changes in the chemical composition, or any increase in the porosity. The specimens were submitted to metallographic and X-ray analysis and microhardness measurements. The following conclusions are drawn: 1) A phase exists in the B-Si-C system with a melting temperature above 2100 °C and a very high hardness (about 7000 kg/mm² and above), noticeably exceeding the microhardness of boron carbide (5000 kg/mm²). 2) In specimens produced and treated in the described way, metallographic and X-ray analysis did not show the presence of any new phases in noticeable quantities, only solid solutions based on B₄C, SiC and Si (the latter at an insufficient carbon content). The X-ray analysis indicated that the solubility of silicon (or siliconcarbide) is small in boron carbide (less than 2% if calculated on Si), but metallographic investigation suggested

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the presence of an apparently single phase up to 10-12% silicon. This can be explained by the separation of submicroscopically dispersed SiC particles on cooling. The microhardness of such grains, based on B₄C, is 7000 kg/mm² and, in some cases reaches 8000 kg/mm². 3) Grains of solid solutions based on SiC have a microhardness of 5000-5200 kg/mm² instead of the 3500 of pure SiC. 4) The hardness of B-Si-C alloys changed little up to a temperature of 700-800 °C. For alloys based on B₄C, the hardness of 6000-7000 kg/mm² at 20° dropped to 3000 kg/mm² at 800-900 °C and, for alloys based on SiC, from 4000-5000 kg/mm² to 1500 kg/mm². During these measurements, the formation of cracks was observed around the indentation in a number of cases, indicating that the actual hardness values could be higher. The work was carried out in the Kafedra redkikh metallov i poroshkovoy metallurgii (Department of Rare Metals and Powder Metallurgy) of the Institut tsvetnykh metallov imeni M.I. Kalinina (Institute of Non-ferrous Metals imeni M.I. Kalinin), in cooperation with the Fiziko-Khimicheskiy institut imeni L.Ya. Karpova (Physico-Chemical Institute imeni L.Ya. Karpov).

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An investigation of some hard alloys ... S/180/61/000/004/013/020
EO71/E180

There are 1 figure, 1 table and 4 references: 3 Soviet-bloc and
1 English. The English language reference reads as follows:

Ref.1: F. Ton. The quest for hard materials. Industrial and
Engineering Chemistry. Industrial edition, 1938, 30,
232-242. *JK*

SUBMITTED: November 21, 1960

Card 4/4

L 10082-63

EXP(q)/EWT(m)/BIS--AFPTG--D

ACCESSION NR: AP3001421

S/0135/63/000/006/0058/0063

AUTHOR: Dergunova, V. S.; Kolonin, Yu. G.; Tseytlin, V. Z.

56

TITLE: Investigation of sintered alloys of a ZrC-TaC system

SOURCE: Tsvetnyye metally, no. 6, 1963, 58-63 ¹ 1 ¹

TOPIC TAGS: ZrC-TaC alloys, lattice parameters, solubility of components, room temperature microhardness, hardness at high temperatures, temperature coefficient of hardness, application, specific density

ABSTRACT: Eleven ZrC-TaC alloys, ranging from pure ZrC to pure TaC, were investigated. Mixtures of 90.13%-pure Ta, 96.0%-pure Zr, and C were compacted, sintered in hydrogen at 1400--2400C, crushed, and hot compacted in graphite dies at 2600--2700C under a pressure of 230 kg/cm sup 2. Alloys were then annealed at 2300C for 2 hr. X-ray diffraction patterns showed that the lattice parameter "a" increased linearly from 4.440 Angstrom for pure ZrC to 4.680 Angstrom for pure TaC, indicating the unlimited solid solubility of the components. Microscopic examination also revealed only one phase in all alloys studied. Specific density increased continuously with increasing TaC content. Microhardness at room temperature decreased continuously from approximately 2170 kg/mm sup 2 for alloys with approximately 10% TaC to approximately 1400 kg/mm sup 2 for alloys with 90%
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ACCESSION NR: AP3001421

TaC. The hardness-composition curves at 450--1200C follow the same pattern as th
of microhardness-composition at room temperature. The temperature coefficient of
hardness at 700--1200C has the highest value in alloys with approximately 20%
TaC and the lowest in alloys with 80--90% TaC. Alloys with 80--90% TaC also have
the highest melting temperature and can be recommended for testing as structural
materials for parts working at high temperatures in nonoxidizing media. Orig.
art. has: 6 figures.

ASSOCIATION: none

SUBMITTED: 00

DATE ACQ: 09Jul63

ENCL: 00

SUB CODE: 00

NO REF SOV: 005

OTHER: 001

Card

2/2

ellm/ak

L 38089-63 EWG(j)/EWF(e)/EWT(m)/EPP(c)/EPT(h) - /EWG(m)/EPR/EWP(c)/EWP(b)
 Pr-4/PB-4/Pa-4 IdP(c) JD/WK/JG/ES/AT/WH S/0000/64/000/001/0090/0093
 ACCESSION NR: AT5003514

AUTHOR: Dergunova, V. S.; Kostikov, V. I.

TITLE: Preparation of zirconium boride

SOURCE: Konstruktsionnye uglegrafitovyye materialy (Carbon and graphite construction materials); zhornik trudov, no. 1, Moscow, Izd-vo Metallurgiya, 1964, 90-93

TOPIC TAGS: refractory metal, boron alloy, vacuum refining, zirconium, hardening method

ABSTRACT: The borides of refractory metals are outstanding among metalloids compounds for corrosion resistance, infusibility and hardness. The combination of these properties makes it possible to use these compounds for creating fireproof and refractory materials. The authors studied the effect on the purity and composition of the boride produced when small amounts of boron oxide are added to the charge for producing ZrB_2 by the borocarbide method. The initial materials for the research were: industrial zirconium dioxide containing 2.7% SiO_2 ,

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I. 38089-65

ACCESSION NR: AT5003514

1.1% TiO and 0.12% Al₂O₃; industrial boron carbide containing 74.16% B, 23.41% C_{comb}, 1.3% Si and 0.7% Fe; chemically pure boron oxide; lamp black. It is shown that the addition of B₂O₃ to the charge improves the quality of the product when producing ZrB₂ by the thermal vacuum method according to the reaction $2ZrO_2 + B_4O_7 + 3C = 2ZrB_2 + 4CO$. The optimum quantity of boron oxide to be added to the charge is 7.5%. It is shown that in carrying out the process in a TVV-4 furnace using industrially pure materials, it is possible to produce large batches of pure ZrB₂ without additional purification. Orig. art. has: 2 tables.

ASSOCIATION: none

SUBMITTED: 20Dec63

ENCL: 00

SUB CODE: MM

NO REF SOV: 005

OTER: 002

Cord 2/2

38088-65 EWG(j)/EWT(d)/EWP(e)/EPA(e)-2/EWT(i)/EPP(c)/EPP(n)-2/EWG(m)/
 EWP(v)/EPR/EPA(w)-2/EWP(t)/EWP(k)/EWP(h)/EWP(l)/EWP(i) Pub-10/Pf-4/Pr-4

ACCESSION NR: AT5001515 Ps-4/Pt-10/Pu-4 S/0000/64/000/001/0094/0098
 JD/WJ/JG/GS/IT/NH

AUTHOR: Dergunova, M. S.; Pinski'shteyn, G. B.; Kostikov, V. I.

TITLE: Producing titanium¹ and zirconium¹ nitrides¹

SOURCE: Konstruktsionnyye uglegrafitovyye materialy (Carbon and graphite construction materials); sbornik trudov, no. 1. Moscow, Izd-vo Metallurgiya, 1964, 94-98

TOPIC TAGS: refractory metal, nitriling, superconductivity, automatic control, titanium compound, zirconium compound

ABSTRACT: Nitrides of the transition metals in the fourth and fifth groups in the periodic system of elements have high melting points as well as high chemical and thermal stability. This has made it possible to use them as fireproofing materials and refractories. The relatively high electrical conductivity of the metallic type, and the capacity of the nitrides to pass over to the superconducting state gives good prospects for using these materials in electronics and

Card 1/2

L 38088-65
ACCESSION NR: AT5003515

2

automation. Direct nitriding of metal powders and nitriding of metal oxides mixed with carbon black are the most promising methods for industrial use. In this article the authors studied the conditions for producing TiN and ZrN from oxides, and investigated methods for removing carbon and oxygen from the obtained nitrides. The initial materials for the research were: industrial titanium dioxide containing 0.13% Fe₂O₃, 0.16% Al₂O₃, 59% Ti; industrial zirconium dioxide containing 2.7% SiO₂, 1.1% TiO₂, 0.12% Al₂O₃; lamp black fired at 400°C. It is established that it is possible to improve the chemical composition of titanium and zirconium nitrides produced by nitriding the corresponding oxides mixed with carbon black, firing them in nitrogen. It is shown that it is preferable to use an excess of carbon in comparison with that required for the reaction $M_2O + 1/2N_2 + C \rightarrow M_2N + CO$ when producing titanium nitride. Orig. art. has: 3 figures, 1 table.

ASSOCIATION: none

SUBMITTED: 20Dec63

ENCL: 00

SUB CODE: IC, MM

NO REF SOV: 005
Card 2/2 nu.

OTHER: 002

L 41064-65 EPF(n)-2/EPR/EWT(a)/EWG(m)/EWP(b)/EWP(c)/EWP(t) PS-8/Pu-4 IJP(c)
 AT/WH/WW/JD/JG

ACCESSION NR: AHS005876

S/0081/64/000/023/M004/M004 36

13

SOURCE: Ref. zh. Khimiya, Abs. 23MB1

AUTHOR: Dergunova, V.S.; Kostikov, V.I.

TITLE: The synthesis of zirconium boride

CITED SOURCE: Sp. Konstrukts. uglegrafit. materialy. No. 1.. M., Metallurgiya, 1964, 90-93

TOPIC TAGS: zirconium boride, zirconium dioxide, Boron trioxide, boron carbide

TRANSLATION: The authors demonstrated the effectiveness of adding B_2O_3 to the charge during the preparation of ZrB_2 by the vacuum thermal method according to the reaction:
 $2ZrO_2 + B_4C + 3C = 2ZrB_2 + 4CO$. When the process was carried out in a TVV-4 furnace, it was found to be possible to obtain large proportions of pure ZrB_2 from starting materials of technical purity without supplemental purification. Bibliography with 7 references. From the authors' summary

ENCL: 00

SUB CODE: 10

Card 1/1 CC

L 32937-66 EWP(k)/EWT(m)/EWP(e)/EWP(t)/ETI IJP(c) AT/WH/JD/JG/WB/JT

ACC NR: AP6019932

SOURCE CODE: UR/0122/66/000/006/0063/0065

AUTHOR: Dergunova, V. S. (Candidate of technical sciences); Komissarov, G. K. (Engineer); Yermakova, M. P. (Engineer); Kuznetsov, L. I. (Engineer); Gol'denberg, A. A. (Candidate of technical sciences)

ORG: none

TITLE: Metal ceramic alloy for work at elevated temperatures

SOURCE: Vestnik mashinostroyeniya, no. 6, 1966, 63-65

TOPIC TAGS: metal ceramic material, sintered alloy, high temperature cermet material, titanium carbide containing alloy, boron carbide containing alloy, silicon carbide containing alloy, alloy oxidation, alloy thermal fatigue

ABSTRACT: Several ternary alloys containing 40.8--60% TiC, 20--39.2% B₄C, and 20% SiC were compacted at 2100--2150C under a pressure of 230 kg/cm², diffusion annealed at 1900C for 12 hr in an argon atmosphere, cooled at the rate of 100C/hr, and tested for oxidation resistance and thermal fatigue. Oxidation-resistance tests made on alloys oxidized in air at 900C for 20 min, 1.5 hr, 3.5 hr, 10 hr, and 15 hr showed that the most intensive oxidation, accompanied with oxide film formation, occurs in the initial period of the exposure and practically ceases after 5-hr exposure. All tested alloys can be regarded as oxidation resistant since their weight gain in 15-hr

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UDC: 621.762

41
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16

L 32937-66

ACC NR: AP6019932

4
tests was only 4-6 mg/cm², which is 3.5 times lower than the weight gain of TiC under identical conditions of oxidation. The thermal fatigue resistance was evaluated from the number of quenches from 1200 and 2000C sustained by alloy specimens before failure. In quenching from 1200C, the investigated alloys sustained 40 thermal cycles without failure, which was double the number of thermal cycles sustained by TiC and 20 times as many as an alloy containing 85% SiC + 15%B₄C sustained. Hence, titanium-, boron- and silicon carbide-based alloys can be recommended as material suitable for making parts operating at high temperature under conditions of frequent temperature changes. Orig. art. has: 4 figures and 2 tables. [ND]

SUB CODE: 11/ SUBM DATE: none/ ORIG REF: 002/ OTH REF: 006/ ATD PRESS: 5027

Card

2/2 *LSB*

ACC NR: AP7002845

SOURCE CODE: UR/0136/66/000/012/0084/0086

AUTHOR: Dergunova, V. S.; Timonin, P. L.; Kuzin, A. N.; Tseytlin, V. Z.

ORG: none

TITLE: Properties of tantalum diboride-zirconium diboride alloys containing chromium

SOURCE: Tsvetnyye metally, no. 12, 1966, 84-86

TOPIC TAGS: alloy composition, hardness, porosity, metal melting, chromium
containing alloy, tantalum base alloy, boride, zirconium base alloy

ABSTRACT:

TaB₂-ZrB₂-Cr alloys containing 20, 25 and 30% of ZrB₂ and 3-10% Cr were obtained from ZrB₂ (79.6% Zr, 19.67% B, 0.01% C) TaB₂ (89.18% Ta, 9.97% B, 0.01% C) and 99.9%-pure Cr powders by compacting at 2100-2200C under a pressure of 220 kg/cm² and homogenization at 2000C in an argon atmosphere. Depending on the composition, the porosity of alloys varied from 0.5 to 3-4%. The alloys consisted mainly of a solid solution of zirconium boride in tantalum boride with a microhardness of 2900-3300 kg/mm², and a solid solution of chromium boride in tantalum boride with a microhardness of 1000-1200 kg/mm². In addition, fine grains of a third phase,

Card 1/3

UDC: 669.294/296

ACC NR: AP7002845

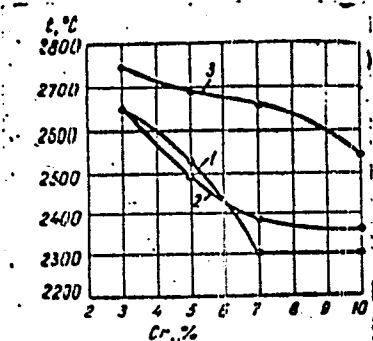
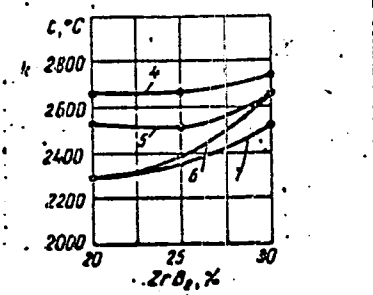


Fig. 1. Composition dependence of the melting point of TaB_2-ZrB_2-Cr alloys

$TaB_2:ZrB_2$ ratio: 1 - 80:20; 2 - 75:25;
3 - 70:30; Cr additions: 4 - 3%; 5 - 5%;
6 - 7%; 7 - 10%.



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ACC NR: AF7002845

probably chromium boride, were observed along the second phase grain boundaries. The composition dependence of the melting temperature of TaB_2 - ZrB_2 -Cr alloys is shown in Fig. 1. Increasing the chromium content from 3 to 10% lowered the strength (hardness) of the alloys both at room and at elevated temperatures, but increased their oxidation resistance. Orig. art. has: 5 figures and 1 table.

SUB CODE: 11/ SUBM DATE: none/ ORIG REF: 007/ OTH REF: 005/ ATD PRESS: 5113

Card 3/3

DERGUZOV, V.I.; YAKUBOVICH, V.A.

Existence of solutions to linear Hamiltonian equations with
unbounded operator coefficients. Dokl. AN SSSR 151 no.6:1264-1267
Ag '63. (MIRA 16:10)

1. Predstavleno akademikom V.I.Smirnovym.

DERGUZOV, V.I.

Stability of solutions to Hamiltonian equations in Hilbert
space with unbounded periodic operator coefficients. Dokl.
AN SSSR 152 no.6:1294-1296.0 '63. (MIRA 16:11)

1. Predstavleno akademikom V.I. Smirnovym.

DERGUZOV, V.I.; FOMIN, V.N. (Leningrad):

"Mathematical analysis of the dynamical stability of elastic systems with infinite degrees of freedom."

report presented at the 2nd All-Union Congress on Theoretical and Applied Mechanics, Moscow, 29 Jan - 5 Feb 64.

L 40806-65 EW(d) IJP(c)
ACCESSION NR: AF4042913

E/0019/64/064/003/0419/0435

8

B

AUTHOR: Derguzov V. I. (Leningrad)

16

TITLE: Conditions sufficient for stability of the Hamilton equations with unlimited periodic operator coefficients

SOURCE: Matematicheskiy sbornik, v. 64, no. 3, 1964, 419-435

TOPIC TAGS: stability condition, Hamilton equation, periodic operator coefficient

ABSTRACT: The author considers the Hamilton equation

$$J \frac{dx}{dt} = H(t)x$$

in the complete complex separable Hilbert space W . J is the limited anti-Hamiltonian operator ($J^* = -J$), $H(t)$ is the unlimited symmetric T -periodic operator satisfying certain conditions. Conditions sufficient for the stability of the Hamilton equation are obtained. The main result consists in the following theorem: Assuming that there is a continuously increasing, strongly stable curve $H(t, s)$,

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L 40806-65

ACCESSION NR: AP4042913

$0 \leq S \leq 1$, then the equation

$$J \frac{dx}{dt} = (H_0(t) + \tilde{H}(t))x$$

is strongly stable for any operator $\tilde{H}(t) \in M$ which satisfies the inequality

$$H(t, 0) \leq \tilde{H}(t) \leq H(t, 1)$$

Orig. art. has: 18 equations.

ASSOCIATION: None

SUBMITTED: 08Jul63

ENCL: 00

SUB CODE: MA

NR REF SOV: 007

OTHER: 002

Card ⁴⁰ 2/2

ACCESSION NR: AP4033685

S/0039/64/063/004/0591/0619

AUTHOR: Derguzov, V. I. (Leningrad)

TITLE: Stability of solutions of Hamilton equations with unbounded periodic operator coefficients

SOURCE: Matematicheskiy sbornik, v. 63, no. 4, 1964, 591-619

TOPIC TAGS: Hamilton equation, periodic coefficient, operator coefficient, separable Hilbert space, solution stability, periodic operator, finite dimensional space

ABSTRACT: This is an extension of work by M. G. Kreyn (Osnovny*ye polozheniya teorii λ -zon ustoychivosti kanonicheskoy sistemy* lineyny*kh differentsial'ny*kh uravneniy s periodicheskimi koeffitsiyentami. Sbornik pamyati A. A. Andronova, Moskva, Izd. AN SSSR, 1955), who investigated the finite-dimensional case of the problem in this paper. The present author obtains sufficient conditions for strong stability of solutions of the Hamilton equation

$$J \frac{dx}{dt} = H(t)x \quad (1)$$

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ACCESSION NR: APl4033685

in complete complex separable Hilbert space W . Here J is a bounded (together with its inverse) anti-Hermitian operator, $H(t)$ is an unbounded symmetric operator of period T which can be represented in the form $H(t) = H_0(t) + H_1(t)$, where $H_0(t)$ is a positive definite operator and $H_1(t)$ is some subordinate addition. Certain restrictions are imposed on the coefficients of equation (1). In view of the unboundedness of the operator $H(t)$, the stability conditions are somewhat different from those of Kreyn. The author indicates reasons for using the non-standard definition

$$\| |F|^{\frac{1}{2}} H_0^{\frac{1}{2}}(0)x(t) \| \leq C \| |F|^{\frac{1}{2}} H_0^{\frac{1}{2}}(0)x(0) \| \quad (2)$$

of stability of (1) and shows why it is reasonable. He motivates the following: An operator $Z(t)$, satisfying only the relation $Z'(T)Z(T) = F$, where $F = -iH_0^{-1/2}(0) J H_0^{-1/2}(0)$ is a bounded symmetric operator and its inverse F^{-1} is unbounded and is called an F -unitary operator. He studies F -unitary operators, indicating an example which shows that an F -unitary operator $Z(t)$ may not have a spectrum of mixed type and the collection of its integral powers is unbounded. Determination of the type of points of the spectrum of the operator $Z(T)$ is analogous to the case of finite-dimensional space W and is given in the paper. It is shown that the F -

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ACCESSION NR: AP4033685

unitary operator $Z(T)$ is similar to the bounded operator $Y(T) = [F]^{-1} Z(T) [F]$.
Here $[F]^{-1} = \int \sqrt{|\lambda|} dE_{\lambda}$, E_{λ} is the decomposition of a unit of the operator F . If $Z(T)$

does not have a spectrum of mixed type, then the collection of integral powers of of the operator $Y(T)$ is bounded. This assertion is equivalent to the estimate (2). Thus equation (1) is stable if for all of its generalized solutions $x(t)$, the estimate (2) is satisfied. If also all equations (1) are stable for small changes of the operator $H_1(t)$, then (1) is called strongly stable. The operator $Y(T)$ is

G-unitary, where the symmetric operator G is determined by the operator F . If $Z(T)$ does not have a spectrum of mixed type, then neither does $Y(T)$. The reverse assertion is not true. The author shows that for strong stability of (1), it is sufficient that the operator $Y(T)$ not have a spectrum of mixed type. The latter is the basic result of the paper. Orig. art. has: 77 formulas and 2 figures.

ASSOCIATION: none

SUBMITTED: 23Mar63

DATE ACQ: 07May64

ENCL: 00

SUB CODE: MA

NO REF SOV: 005

OTHER: 003

Card 3/3

DERGUZOV, V.I.

Necessary conditions of strong stability of Hamiltonian equations
with unbounded periodic operator coefficients. Vest. LGU 19 no.19:
18-30 '64. (MIRA 17:11)

GALDINA, N.M.; DERI, Atilla [Déri, A.]

Manufacture and service of "korvishit", a corundum refractory material, in Hungary. Stek. i ker. 19 no.6:41-44 Je '62.
(MIRA 15:7)

(Hungary--Refractory materials)

DERI, Erno, tanar; HAVEL, Jeno, tanar; KATONA, Mihaly

Trade-union political schools in 1963-64. Munka 14 no.3:
22-23 Mr 164.

1. Szakszervezetek Orszagos Tanacs Iskolaja (for Deri and Havel).
2. Szakszervezetek Orszagos Tanacs kulturális osztalya (for Katona).

DERI, Erno, tanar

Structural changes in the working class. Munka 15 no.3:8-9
Mr '65.

1. School of the Central Council of Hungarian Trade Unions,
Budapest.

DERI, Ernő

Women and peace. Munka 14 no. 2: 4-5 F '64.

1. Szakszervezetek Országos Tanácsa szervezési osztálya munkatársa.

BATSANOV, S.S. (Novosibirsk); DEREBAS, A.A. (Novosibirsk)

Effect of an explosion on matter. Structural changes in
neodymium oxide. Nauch.-tekh. probl. gor. i vzyva. no.1:
103-108 '65. (MIRA 18:9)

DERIBAS, A.A., kand.fiz.,-matem.nauk

Theoretical and practical problems of explosion; session in Novosibirsk. Vest. AN SSSR 35 no.7:80-82 J1 '65.

(MIRA 13:8)

BATSANOV, S.S.; BLOKHINA, G.Ye.; DERIBAS, A.A.

Effect of explosion on a substance. Structural changes of boron nitride.
Zhur. strukt. khim. 6 no.2:227-232 Mr-Apr '65. (MIRA 18:7)

1. Institut neorganicheskoy khimii Sibirskogo otdeleniya AN SSSR i Institut gidrodinamiki Sibirskogo otdeleniya AN SSSR.

L 45296-66 EWT(m)/I/EWP(t)/ETI IJP(c) JD

ACC NR: AR6017491

SOURCE CODE: UR/0137/66/000/001/1003/1003

AUTHORS: Derid, O. P.; Radantsan, S. I.

32
B

TITLE: Phase diagram of alloys in the system ²¹In₂Te₃ -- ²¹In₂Se₃

SOURCE: Ref. zh. Metallurgiya, Abs. 1119

REF SOURCE: Sb. Materialy dokl. 1-y Nauchno-tekhn. konferentsii Kishinevsk. politekhn. in-ta, Kishinev, 1965, 68-69

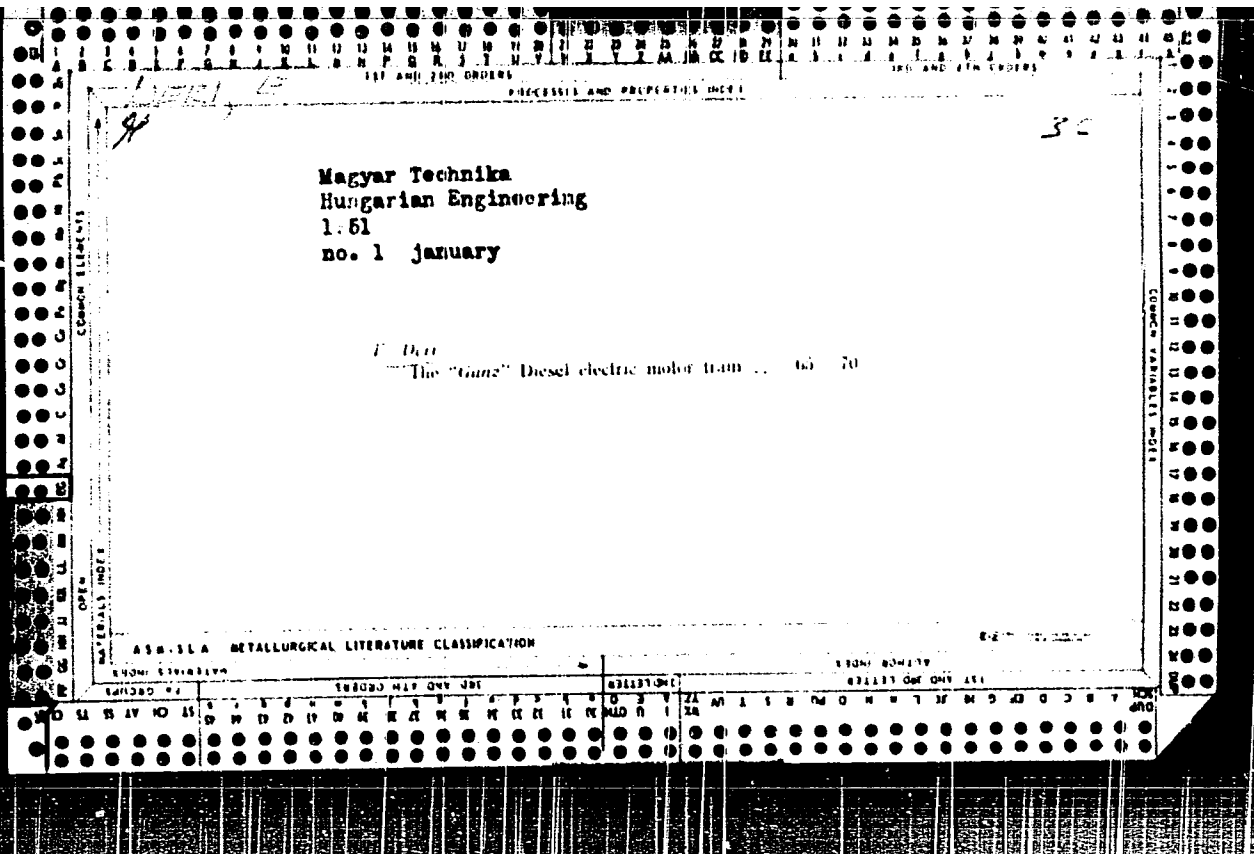
TOPIC TAGS: indium, tellurium, selenium, indium containing alloy, tellurium containing alloy, selenium containing alloy, alloy phase diagram

ABSTRACT: Methods of microscopic, x-ray, and thermal analysis, as well as measurements of microhardness, were used to study and construct the phase diagram for a pseudobinary section of In₂Te₃ -- In₂Se₃ in the system of In-⁶Se-Te. The dependence of Se solubility in In₂Te₃ on the temperature was ascertained, and the ordered state of defects in the solid solutions based on In₂Te₃ was determined. Z. Rogachevskaya.
[Translation of abstract]

SUB CODE: 11

Cord 1/1 *hdd*

UUC: 660 07 777 776.017.13



DERI, E.

"The Soviet diesel-electric locomotives" p. 241, (GEF, Vol. 5, no. 6, July 1953,
Budapest, Hungary)

SO: Monthly List of East European Accessions, L.C., Vol. 2, No. 11, Nov. 1953, Uncl.

DERI, E.

"Main-line locomotives and motor locomotives in the Soviet Union." p. 552.
(Magyar Technika, Vol. 8, no. 9, Sept 53, Budapest)

SO: Monthly List of East European Accessions, Vol 3 No 2 Library of Congress Feb 54 Uncl

Déri, E.

270. The application of compound motors for tramway service. E. Déri, *Elekrotechnika*, 47, No. 7, 206-10 (July, 1954) in Hungarian.

A tramcar is described incorporating four compound motors with regenerative braking. Performance data are given in the form of characteristic curves and the schematic diagram of the control system is shown.

L. CSURCS.

DEMI, E.

Modern Hungarian diesel-electric locomotives. p. 225. JAROSVIR MEZOGAZDASAGI
GEPIK. Vol. 2, no. 8. Aug. 1955. Budapest.

SOURCE: East Europeans Accessions List. (EIAL) IC, Vol. 5, no. 2, 1956. Feb.

DERI, E.

DERI, E.
Modern Hungarian diesel-electric locomotives. p. 409

Vol. 5, No. 11, Nov. 1955 Budapest, Hungary KOZLEKEDESTUDOMANYI
SZEMLE

SO: Monthly List of East European Accession, (EEAL), LC, Vol. 5
No. 3, March, 1956

DERI, E.

Current questions of railroad electrification in the Soviet Union. p. 87.
KOZLEKEDÉSI TUDOMÁNYI SZEMLE. (Közlekedési Kiado) Budapest. Vol. 6, no. 3,
Mar. 1956.

SOURCE: East European Accessions List (EEAL) Library of Congress
Vol. 5, no. 8, August 1956

VAJKAI, Janos; DERI, Ferenc

Pneumatic transportation in foundries. Munkavedelem 8 no.7/9:13-
16 '62.

DERI, I. [Déry, I.]; GERI, I.; SABO, G. [Szabó, G.]; OPOTSKI, P. [Oposzky, P.]

Synthesis of progesterone from ergosterin. Med.prom. 13 no.10:14-20
0 '59. (MIRA 13:2)

1. Zavod farmatsevticheskikh i khimicheskikh preparatov "Khinoin"
(Budapesht) i Institut organicheskoy khimii Tekhnicheskogo universi-
teta (Budapesht).

(ERGOSTEROL)

(PROGESTERONE)

DERI, J.

DERI, J., FOLFOLDI, L. : JAKAB, I.

"Mechanization of Loading Trucks", P. 264. (KOZLEKED ESTUDOMANYI
SZEMLE, Vol. 4, No. 7/8, July/Aug. 1954, Budapest, Hungary)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4,
No. 1, Jan. 1955, Uncl.

DERI, Karoly

An irregular conference on production. Ujit lap 12 no.22:10 25 N
'60.

35431

S/081/62/000/004/049/087
B150/B138

21,2000

AUTHOR: Déri, Márta.

TITLE: Ceramic materials for atomic reactors

PERIODICAL: Referativnyy Zhurnal. Khimiya, no. 4, 1962, 380,
abstract 4K219 (Építőanyag, v. 13, no. 4, 1961, 121-133)

TEXT: From a study of the processes taking place in atomic reactors, specifications for ceramic materials are set out. Information is given on the production and technology of these materials. As heating elements ceramic materials can be used which are based on UO_2 and UC , on powders of these substances in a metallic bond, and also based on ThO_2 . Moderator ceramics may be made from BeO , Be_2C and from graphite. For regulating and protective purposes ceramic articles can be used, which are made from the oxides of the rare-earth metals (Sm, Eu, Gd, Dy) and sintered HfO_2 and HfC , and also from B_4C and BN . Among the structural materials for

Card 1/2

Ceramic materials...

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B150/B138

reactors mention is made, of carbides and articles made from oxide ceramics based on BeO, ZrO₂ and SnO₂. In all cases the basic parameters of the production technology of these articles (temperature, media, conditions of molding and sintering, etc.) are given. [Abstracter's note: Complete translation.]

Card 2/2

DERI, Marta

"Encyclopedia of iron metallurgy." Vol. III/1: "Refractory building materials of iron metallurgy" by Laszlo Szabo. Reviewed by Marta Deri. Magyar kem folyoir 69 no.12:563-564 D'63.

"Encyclopedia of iron metallurgy" Vol. III/2: "Refractory building materials of iron metallurgy" by Janos Sovegjarlo. Reviewed by Marta Deri. 564

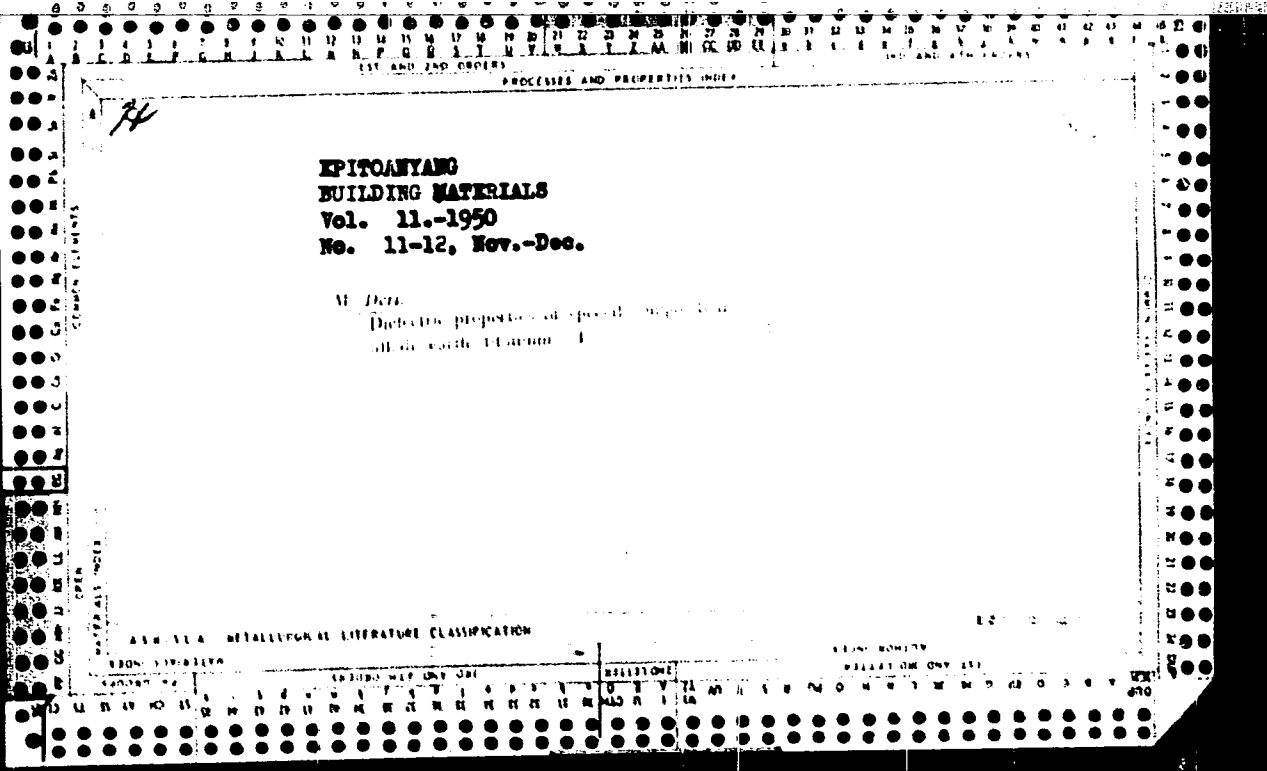
19

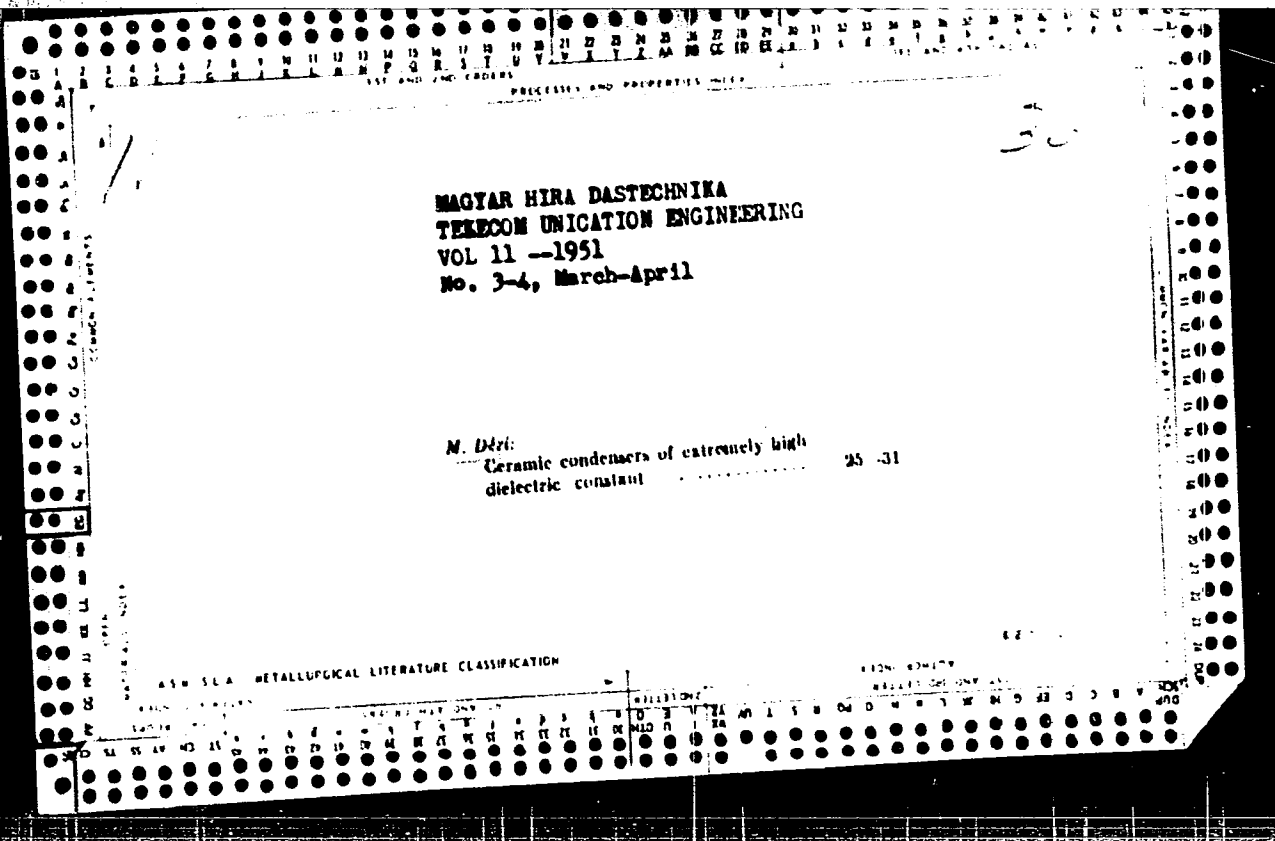
CA

New ceramic materials of high dielectric constant. Márta Déri. *Magyar Kém. Lapja* 3, 191-3(1948).—To a mixt. contg. 1.4 mol. Al₂O₃ to 1.0 mol. TiO₂, increasing amts. of MgO were replaced by CaO. The dielec. const. and temp. coeff. both increased with increase in CaO. Expts. were made with titanates of Ca and Ba. In the Ca titanates max. dielec. const. occurred in the compn. CaO.TiO₂. Titanates of Mg, Ca, and Sr seem to be suitable for condensers. Titanates of Ba are not suitable for condensers but may be useful as optical media in app. where ultrashort waves are used. István Flódy

ASSOCIATED METALLURGICAL LITERATURE CLASSIFICATION

1948 1949 1950 1951 1952 1953 1954 1955 1956 1957 1958 1959 1960 1961 1962 1963 1964 1965 1966 1967 1968 1969 1970 1971 1972 1973 1974 1975 1976 1977 1978 1979 1980 1981 1982 1983 1984 1985 1986 1987 1988 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000





PROCESSES AND PROPERTIES INDEX

EPITOANYANG
BUILDING MATERIALS
 Vol. 111. -1951
 No. 1-2, Jan.-Feb.

M. Ditt
 Dielectric properties of special composition
 alkali earth Titaniums II 30-- 35

METALLURGICAL LITERATURE CLASSIFICATION

METALLURGY										METALS										NON-FERROUS METALS										FERROUS METALS																			
GENERAL										ALUMINUM										COPPER										IRON																			
TITANIUM										ZINC										SILICON										MANGANESE																			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50

DÉRI, M.

Hungarian

CA: 47: 10966

with S. LENGYEL, E. ZÖLD, and D. DOBOS

Tech. Univ., Budapest

"Effect of ions on the density of water in aqueous solutions of electrolytes."

Acta Chim. Acad. Sci. Hung. 3, 13-45 (1953) (English summary)

DERI, M.

"Ceramic semiconductors." p. 178. (Epitoanyag, Vol. 5, no. 5, May 53, Budapest)

SO: Monthly List of East European Accessions. Vol 3 No 2 Library of Congress Feb 54 Uncl

NERI, M.; HEINER, J.

"Semiconductors of Spinel with A Base of Iron Oxide", p. 109, (SITVANYI, G.,
Vol. 6, No. 4, April 1954, Budapest, Hungary)

CC: Monthly list of East European Accessions (EEAL), IC, Vol. 4, No. 3,
March 1955, Encl.

DÉRI, MARTA

2
IMH

✓ Ceramic-metal combinations. MARTA DÉRI. Magyar Tech.,
9 (2) 92-99 (1954); abstracted in Chem. Abstr. 50 (22) 5163
MT (1955).—Refractory coatings and cermets are reviewed.

M.H.A.



DERI, M.

6

✓ Iron oxide-base semiconductors of spinel structure. M. Déri and J. Millner (Tech. Univ., Budapest). *Acta Chim. Hung. Sci. Hung.* 5, 215-32 (1956) (in English). --The cond. of valence-change semiconductors of the ternary system $Fe_3O_4-ZnO-TiO_2$ is a function of the compn. The changes of the cond. can be explained by the presence of partly occupied octahedral sites in the spinel lattice of Fe_3O_4 . Anions of TiO_2 in excess of the concn. of the empty spaces are not incorporated into the lattice. Zn^{++} is only incorporated at these spaces if there is an insufficient no. of Ti^{4+} ions present to occupy all empty spaces. Zn^{++} however occupies tetrahedral interstices. The changes in resistivity and probability of the electron exchange in relation to temp. and compn. are shown in figures. P. Schossberger

RAW

Deri, Marta

Hungary /Chemical Technology. Chemical Products
and Their Application

I-12

Silicates. Glass. Ceramics. Binders.

Abs Jour: Referat Zhur - Khimiya, No 9, 1957, 31542

Author : Deri Marta

Title : Piezoelectric Properties of Ceramic Materials

Orig Pub: Epitoanyag, 1955, 7, No 6, 207-210

Abstract: No abstract.

Card 1/1

DERI, Marta

"Surface properties of silicate glasses" by Gyorgy Koranyi. Reviewed
by Marta Deri. Magy kem lap 16 no.4:164 Ap '61.

KORACH, M.; DERI, M.; SASVARI, G.; MOLDVAT, A. S.; PRAGER, I.; ACKERMANN, L.;
SZABONYI, I.

Examination of the Hungarian fly ashes; fly ash as raw material. Periodica
polytechn chem 5 no. 4:341-356 '61.

1. Lehrstuhl für Chemische Technologie, Technische Universität.

DERI, Marta, dr.

Technical ceramics. Musz elet 16 no.25:11 D '61.

DERI, Marta, dr.

"Chemical indicators" by Eva Banyai. Reviewed by Dr. Marta Deri.
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